Page 1 third paragraph, line 25 replace as follows:

A2

Another key issue with this laser, is their continuity of operations in the event of a safety problem. For example, lasers are often used for short-range, line-of-sight communications such as between two buildings separated by a right of way that prevents buried cables. The communication lasers operate at a much higher power than educational pointers. However, even though the laser system is carefully aligned from a transmitter to a receiver and sealed from accidental exposure by maintenance personnel, the possibility still exists for the beam to be broken by maintenance personnel or birds flying through the area, etc. The inadvertent exposures "breaks " the beam and cause loss of signal continuity, as well as potential personal damage to the object breaking the beam. As a result, laser safety and signal continuity are often addressed by mechanical shielding and interlocks around the emitter and receiver and reduced power which contributes to reduced signal range. In any case, the transmitted laser beam is not enclosed as a protective measure from accidental interruption of the beam.

Page 2, second paragraph, line 18, replace as follows;

A3

WO/017691 A1, entitled "Coupling Lens and Semiconductor Laser Module", issued March 30, 2000 and filed September 10, 1999, discloses a coupling lens for coupling the emerging length in the emerging length beam from a semi-conductor laser to an optical fiber. The coupling lens comprises a single lens integral with a diffraction lens composed of concentric ring bands on the planes of incidents or plane of emergence of a single lens. The diffraction lens has a positive refractive power. The relief function of the diffraction lens is generally an isosceles triangle. When the coupling lens is used with a semiconductor module, the output

power of the module can be so controlled as to conform with the safety standards even if the attenuation film, polarizer or optical fiber comes off without any control circuits or automatically stopping the lasing of the laser.

cont. A3

Page 6, paragraph 7, line 23, replace as follows:

C4 A4

In Figure 1, a laser transmitter assembly 10 comprises, in one embodiment, a main continuous wave laser 12 typically comprising a rear mirror 14 and an output lens 16 projecting a laser beam 18 to a receiver 30 (see Figure 2). A CW laser is well known in the art and described for example in USP 6,055,249. The laser is responsive to an input signal 19. Surrounding and coaxially aligned with the laser 12 is a guard laser 20.

Page 7, first paragraph, line 3, replace a follows:

A5

Typically, the guard laser is a pulsed beam laser, which is well know in the art and described, for example, in USP 6,052,395. The guard laser includes a rear mirror 22 and a lens 23 surrounding the lens 16, and projecting a laser beam 24 to the receiver 30.

Page 7, fifth paragraph, lines 22-23 , replace as follows:

A6

In operation as a laser communication system, the guard band 24 surrounds and insulates the main beam from interruption. Typically, the guard band laser 20 is a low power laser, preferably a pulsed beam laser, and forms a toroid-shaped laser beam 24 about the main laser beam 18. The toroid-shaped laser beam is received by the lens assembly 38. Typically, the main laser beam 18 is a high-power laser using any conventional modulation scheme and the modulated main laser beam is received by the central lens 36. To prevent cross talk between

cont. A.6

laser's 12 and 20, different lasing materials and therefore different frequencies can be used. Likewise, if both lasers 12 and 20 are pulsed lasers, different pulse rates can be used.

Page 8, second paragraph, line 15, replace as follows:

A7

If the guard band is interrupted at any point between the transmitter 10 and the receiver 30, the interruption can be detected by a break in signal in one or more of the segmented receivers 38. The number of receivers whose path is blocked will depend on the number of segments in the lens 35 and the size and the shape of the interfering object. When interruption occurs, the guard band will signal a guard trigger receiver 41 (see Figure 3) to alter the performance of the main laser beam, including shut down, as will be described hereinafter. Since the main beam is modulated digitally, the orderly shutdown consists of buffering the current stream of bits or packets to be transmitted and deactivating the sustaining laser mechanism. The deactivation, which depends on the type of laser and the laser materials in use, may be a termination voltage or other laser acting as an energy pump. If the main laser is a pulsed laser, the orderly shutdown consists of simply not pulsing at the next time.

REMARKS

A review of the application, prior to filing foreign filing, identified the above informalities in the application. No new matter has been entered in the application by the changes noted above. Entry of the amendment for purposes of examination is requested. Pursuant to Rule 1.21, Attachment A, showing a mark-up of the changes in attached hereto.